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ABSTRACT

A heat generator comprising a magneto-caloric material and a method for generating efficient and reliable thermies enabling of substantially limiting displaceable inert masses in order to produce a magnetic field variation required for obtaining a magneto caloric effect and usable by individuals and/or industries. The generator (10) comprises magneto caloric thermal elements (Ti) which are circularly arranged and crossed by conduits containing coolant flowing therethrough and magnetic elements (Gi) exposing the thermal elements (Ti) to a magnetic field action. The generator (10) also comprises magnetic divergence (mj) elements arranged between the thermal elements (Ti) and the magnetic elements (Gi) and coupled to displacement mechanism (not represented) for moving from one thermal element (Ti) to another thermal element (Ti+1) and initiating the magnetic flux variation in the thermal elements (Ti), thereby promoting the calorie and/or frigorie generation. The generator (10) can be used for tempering, cooling, heating, conserving, drying and air-conditioning.